Preface

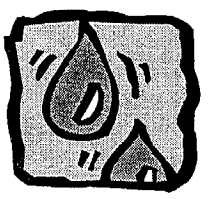
This document describes the Water Use Efficiency Program of the CALFED Bay-Delta Program (CALFED or Program). It is a revision and expansion of material contained in the following three previous public drafts entitled:

- Water Use Efficiency Component, Programmatic Environmental Impact Statement/ Environmental Impact Report (EIS/EIR) Technical Appendix, March 1998
- Revised Draft Water Use Efficiency Program Plan, February 1999
- Revised Draft Water Use Efficiency Program Plan, June 1999

This document does not contain an impact analysis but instead describes the Water Use Efficiency Program.

This preface **summarizes public comments** received by CALFED on draft documents to illustrate the breadth of comments on the program element. A separate document provides responses to public comments received on the June 1999 Revised Draft Water Use Efficiency Program Plan.

Section numbers in the remainder of this document correspond to sections in the earlier public drafts. This consistent organization of the document will make it easier for readers to compare the old and new drafts. The exception to this parallel organization is the treatment of the CALFED Water Transfer Program element. The first public draft of the Water Use Efficiency Program included a discussion of water transfers. This section has been removed from this document to allow a more complete discussion of water transfers, which is contained in the Water Transfer Program Plan.



ISSUE OVERVIEW

As the Water Use Efficiency Program Plan has been developed, eight general issues have been raised by many of the comments on the Draft Programmatic EIS/EIR and by the stakeholders involved in development of the Program Plan. Most of these issues reveal the sharp disagreements among different stakeholder groups and among various public commentors. For example, some believe that the program has gone too far with respect to assurances while others think the program has not gone far enough. This section highlights these eight issues, indicates what progress has been made to resolve conflicts, how the Water Use Efficiency Program Plan addresses the issue, and outlines next steps the Program will take as part of Stage 1. Further detailed information on each of these issues is included in the Program Plan.

ISSUE 1. PARITY

Summary

Should CALFED demand the same level of effort from agricultural, environmental, and urban interests?

Response

CALFED proposes implementing cost-effective efficiency measures in each water use sector: urban, agricultural, and managed wetlands. Because of inherent institutional differences between sectors, approaches are somewhat different for each sector. For example, urban water suppliers are required by the California Water Code to prepare and adopt urban water management plans. They also must consider best management practices (BMPs) and implement those that meet certain criteria. Although agricultural water suppliers do not face the same mandatory planning requirements, CALFED's agricultural water conservation program contains a different, yet equally rigorous approach which will establish Quantifiable Objectives and rely heavily on the stakeholder-driven Agricultural Water Management Council (AWMC). The program's focus on water diverted for environmental purposes has been limited mainly to wildlife refuges and managed wetlands managed by CALFED agencies. Because water is not diverted or applied to other environmental uses as in the urban and agricultural sector, CALFED does not intend to apply efficiency concepts beyond managed wetlands, urban, and agricultural lands. However, CALFED agencies will take direct action to manage water supplies on refuges, rather than an indirect role as in the urban and agricultural sectors.

ISSUE 2. SAVINGS POTENTIAL

Summary

How effective are current efforts to implement water use efficiency measures?

What level of efficiency would occur in the future with and without the implementation of the CALFED program?

What is the potential for future water savings?

Response

Public comments on the savings potential from water use efficiency were numerous and diverse. One clear conclusion is that we still need to refine our estimates of water use and the potential for reduction of water use. In response, CALFED proposes the following actions:

- Stakeholders disagree on the magnitude of forecasted conservation estimates and the feasibility of achieving forecasted levels of conservation. Therefore, the forecasts have been refined and will be further refined during the first few years of Stage 1.
- Develop reference conditions in Stage 1. Reference conditions related to water use and conservation will be established to evaluate future water use efficiency progress.
- Research to improve water use efficiency actions in Stage 1. This program will support research to expand our understanding of the potential of water use efficiency measures.
- Conduct a program of data gathering, monitoring, and focused research (Section 2 of this document). This new program action is intended as a long-term effort that would be implemented as part of the CALFED Preferred Program Alternative.

The purpose of these efforts is to increase confidence in the conservation estimates, while acknowledging that estimates of this nature always retain an element of uncertainty. The need for refinement of the conservation estimates was reinforced by the recommendations of the Agricultural Water Use Efficiency Assurances Stakeholder Focus Group and the Independent Review Panel on Agricultural Water Conservation Potential (Panel). Both of these independent review groups recommended that CALFED refine its conservation estimates (although both felt the initial estimates made by CALFED were a good beginning point).

ISSUE 3. EVAPOTRANSPIRATION AND IRRIGATION EFFICIENCY

Summary

Should CALFED set specific efficiency targets for different water uses?

Response

The Panel recommended that evaporation and transpiration be estimated separately. These factors have been quantified separately as part of the planned refinement of conservation estimates and will be further refined during the first two years of Stage 1. The independent review panel recognized that current methods may prevent confident evaporation estimates. Therefore, CALFED has initiated evaporation research and anticipates additional research during Stage 1.

CALFED will develop a Strategic Plan for Agricultural Water Use Efficiency prior to the during the first year of Stage 1. This strategic planning approach will involve working with local water mangers to establish Quantifiable Objectives that support CALFED's goals (please refer to Attachment C for a description and examples of Quantifiable Objectives). CALFED does not intend to target land use, cropping changes, or arbitrary efficiency standards as part of this planning process. Rather, the Program plans to establish Quantifiable Objectives related to reducing currently irrecoverable losses and improving water

quality, timing, and in-stream flows. This approach will rely heavily on local water managers to determine the best actions that will meet these objectives. Financial and technical support for these actions will be provided through the Agricultural Financial Incentive Program which will be implemented during Stage 1. Although this approach does not target land use, cropping changes, or efficiency standards, local water managers are not precluded from those actions.

In regard to concerns that conservation estimates presented in previous documents were incorrect, this draft has attempted to refine the estimates and better present the methodology. The text at the end of this Preface further explains changes in urban conservation estimates.

ISSUE 4. BEST MANAGEMENT PRACTICES AND EFFICIENT WATER MANAGEMENT PRACTICES

Summary

What role should incentive pricing and volumetric water measurement play in the Water Use Efficiency Program?

Response

Measuring and pricing agricultural customer delivery by volume has been a major point of contention between agricultural and environmental interests. Some agricultural interests contend that in certain areas measuring and pricing by volume would place a significant burden on the district without providing compensatory water conservation benefits. Environmental interests contend that water must be measured if it is to be used efficiently and that incentive pricing programs are necessary to provide water users with a signal of the value of the water resource.

Most environmental interests support the Central Valley Project Improvement Act (CVPIA) Criteria for Evaluating Water Management Plans, which require that all customers' deliveries are measured by a device capable of ±6% accuracy and water is at least partially priced by volume. Most agricultural interests support the measurement and pricing approach of the AWMC, which allows districts to analyze measurement and pricing, and potentially exempt themselves from measurement and pricing programs.

As part of the Water Measurement Program planned for Stage 1, CALFED will develop, after consultation with CALFED agencies, the Legislature, and stakeholders, state legislation that requires appropriate measurement of water use for all water users in California. In developing this legislation, important technical and stakeholder issues will be addressed to define "appropriate measurement," which is expected to vary by region. Aspects of this definition include the nature of regional difference, appropriate point of measurement, and feasible level of precision.

The Quantifiable Objectives (developed in the agricultural strategic planning effort approach) will rely heavily on local water managers to determine the best actions that will meet identified objectives (see discussion as part of Issue 3). This approach does not require or preclude the use of incentive pricing practices as a way to meet the identified objectives.

ISSUE 5. ECONOMICS

Summary

How do you determine if an efficiency measure is cost-effective? What factors should be considered?

Response

CALFED will consider local- and state-level cost effectiveness by implementing the agricultural and urban conservation incentive programs during Stage 1. These programs will provide technical assistance and low-interest loans to help facilitate locally cost-effective conservation actions, and grants to facilitate actions that are cost effective at the state-wide level.

The agricultural strategic planning process is expected to encourage additional beneficial uses of water by developing Quantifiable Objectives related to reducing currently irrecoverable losses and improving water quality, timing, and in-stream flows.

One of CALFED's solution principles is to avoid significant redirected impacts. This principle also applies to potential third-party and groundwater impacts associated with water use efficiency actions.

The use of incentive pricing is discussed under the previous issue, "Issue 4. Best Management Practices and Efficient Water Management Practices."

ISSUE 6. ASSURANCES AND PROCESS

Summary

What method should CALFED use to evaluate progress and what should be done to ensure that progress is made?

Response

The Water Use Efficiency Program incorporates valuable assurance mechanisms that make (1) CALFED benefits contingent on individual demonstration of efficiency water use and (2) storage permitting contingent on wide-spread demonstration of efficiency use (see Section 2.2, "Assurances").

The Water Use Efficiency Program will establish a quantitative method for evaluating progress. The agricultural program will establish Quantifiable Objectives through a strategic planning process. The urban program will develop a certification program.

Incentives are a cornerstone of the Water Use Efficiency Program because experience has indicated that incentives are ultimately more effective than command or regulatory approaches at creating change. The incentive-based approaches, however, also include important safeguards. For example, the agricultural approach will rely on mid-course evaluation of the program to determine whether objectives are being met. If the evaluation so indicates, changes will be made in the program approach. These changes could include a regulatory response.

CALFED will use the work of the agricultural and urban conservation councils (formed under their respective Memorandum of Understanding) to contribute to the Water Use Efficiency Program. However, this will not be the extent of the program. The agricultural program will identify and provide grant funding for measures that go beyond those expected from the Agricultural Water Management Council.

ISSUE 7. RECYCLED WATER

Summary

How much water recycling can be realistically achieved and how should this be accomplished?

Response

CALFED will continue to work with stakeholder groups to further develop and refine incentives, assurances, and other programs that will help achieve the 1-1.5 MAF of additional projected recycling potential.

ISSUE 8. THIRD-PARTY IMPACTS AND GROUNDWATER RESOURCES IMPACTS

Summary

How will third party impacts be avoided?

Response

The CALFED solution principles ensure that CALFED will not create significant redirected impacts. As such, the Water Use Efficiency Program will include safeguards against significant third-party impacts. Further, both the AWMC and the U.S. Bureau of Reclamation's (Reclamation's) Conservation Criteria allow for exemptions from implementing some water management practice based on environmental and third-party impact criteria.

CONTINUING WORK EFFORTS

This document describes the development and planned implementation of CALFED's Water Use Efficiency Program. In addition to the actions planned for Phase III, several ongoing efforts are required to complete the planning process as part of Phase II. This subsection describes decisions yet to be made and program development that is expected to occur before a Final Programmatic EIS/EIR is certified and the CALFED Program implementation phase begins.

ASSURING AGRICULTURAL WATER USE EFFICIENCY

There was widespread dissatisfaction with the approach that CALFED proposed for demonstrating and assuring efficient agricultural water use in the March 1998 Program Plan. In response, CALFED staff have been working with stakeholders and technical experts to refine and improve our agricultural approach. These efforts have included the Agricultural Water Use Efficiency focus group, which helped staff design a strategic planning process during late-1998. The resulting strategic planning effort is currently being used to develop Quantifiable Objectives related to reducing irrecoverable losses and improving water quality, timing, and in-stream flows. These Quantifiable Objectives will be met through local water use efficiency actions and facilitated through CALFED-financed incentives. CALFED will provide assurance that the Quantifiable Objectives are met by limiting access to CALFED benefits and through conditions on proposed storage facilities.

DEFINING APPROPRIATE WATER MEASUREMENT

CALFED has included a Stage 1 action to draft legislation that will require appropriate measurement of all water use in California. In developing this legislation, important technical and stakeholder issues will be addressed to define "appropriate measurement," which is expected to vary by region. Aspects of this definition include the nature of regional differences, appropriate point of measurement, and feasible level of precision. A process for addressing these issues will be defined during the remainder of Phase II.

ESTABLISHING A PROCESS FOR DEMONSTRATION OF REFUGE WATER USE EFFICIENCY

Three CALFED agencies and a Resource Conservation District have drafted an Interagency Coordinated Program for optimum water use planning for wetlands of the Central Valley. A task force representing these entities has recommended a program that includes "Effective Water Management Practices" for refuges and wetland areas of the valley. The report, which is currently being reviewed by the sponsoring agencies, is expected to be the cornerstone of CALFED's refuge water management approach.

DEVELOPING ASSURANCES AND INCENTIVES FOR WATER RECYCLING

Analysis conducted by CALFED and others suggests that a significant portion of future water demand could be met through water recycling. However, the mechanism that CALFED has proposed to assure implementation of recycling projects (local agency compliance with the water recycling planning requirements of the Urban Water Management Planning Act) is a less pro-active mechanism than is proposed to ensure that conservation measures are implemented. In fact, this mechanism would ensure only that agencies complete water recycling planning activities but would not ensure that completed plans were implemented. Even though it appears less strict, CALFED believes that this planning-based requirement in existing law is an appropriate assurance mechanism, given the challenges associated with water recycling—high capital cost, complex planning and permitting, and institutional impediments. Some public comments suggested a different sort of assurance mechanism—strong and innovative incentives that would reward agencies that recycle water.

ADDING DETAIL TO MONITORING AND FOCUSED RESEARCH

In response to public comments and recommendations from the Independent Panel on Agricultural Water Conservation Potential, CALFED has included a new action in the Water Use Efficiency Program: a coordinated program to gather and develop better information on water use, identify opportunities to improve water use efficiency, and measure the effectiveness of conservation practices. This effort will include direct activities by CALFED agencies, assistance to the CUWCC and the AWMC, and assistance to cooperating universities and water suppliers to help quantify the savings from water use efficiency measures. Public comments and other stakeholder input will help CALFED add detail to the implementation planning for this action.

DETERMINING WHICH ENTITY WILL CERTIFY URBAN WATER MANAGEMENT PLANS

CALFED recommends that a certification component be added to ensure better water supplier compliance with the Urban Water Management Planning Act. In the March 1998 Draft Water Use Efficiency Technical Appendix, CALFED recommended that DWR provide this certification. DWR has expressed concern over such a role. DWR staff believe that their role as a provider of assistance may be incompatible with a role as a certification entity. Given this concern, another entity, such as a water-user certification board or the State Water Resources Control Board, may need to certify Urban Water Management Plans. CALFED is continuing to work with CALFED agencies to determine an appropriate process for certifying compliance with requirements of the Act.

DEVELOPING DETAILS OF A BEST MANAGEMENT PRACTICES CERTIFICATION PROCESS

In the first public draft of the water use efficiency appendix, CALFED proposed that the requirements of the Memorandum of Understanding Regarding Urban Water Conservation in California (Urban MOU) constituted appropriate demonstration that urban water suppliers had considered urban water conservation measures. CALFED proposed that the organization created by the Urban MOU, the CUWCC, certify water suppliers' compliance with the terms of the MOU.

The California Urban Water Agencies and the Environmental Water Caucus worked to prepare a proposed certification process that the CUWCC might use. Subsequently, a group of other urban water suppliers proposed an alternative certification proposal based in part on the California Urban Water Agencies/Environmental Water Caucus proposal. CALFED has worked to highlight the differences between the two proposals, gathered public input, and developed a proposed certification process that is consistent with CALFED objectives and solution principles and has the highest achievable degree of stakeholder support.

DEVELOPING A PROCESS FOR DISCLOSURE AND COORDINATION OF PROGRAM IMPLEMENTATION

CALFED has identified a critical need for better coordination of agency and stakeholder actions as the CALFED Program is implemented. CALFED proposes many actions that will involve multiple government agencies and stakeholder groups: expanded levels of water conservation assistance and water recycling assistance to be provided by CALFED agencies, more prominent roles for organizations such as the CUWCC and the AWMC, programs to identify and implement water management measures that yield multiple benefits, and increased efforts focused on monitoring and research. To avoid duplication of effort and carry out the most effective programs, it may be highly desirable to create an open agency/stakeholder process for disclosure and coordination of program implementation efforts. This process would help ensure that public funds are spent most effectively and would provide a forum for public input on the future direction of programs to provide water conservation and recycling assistance. During the remainder of Phase II, CALFED will examine options for the creation of such a process or forum.